

9

Tennessee

TCAP

GRADE 5 MATHEMATICS PRACTICE TESTS

Full-Length Standards-Aligned Practice
for Strong Math Performance

$$A = l \times w$$

$$x^2 + 3x - 4 = 0$$

$$y = 2x + 1$$



9
FULL-LENGTH
PRACTICE
TESTS

$$2,345 \times 6 = 14,070$$



$$\frac{3}{4} + \frac{1}{8} = \frac{7}{8}$$

$$7.2 \div 0.8 = 9$$



$$(12 + 8) \div 4 = 5$$



Build Confidence



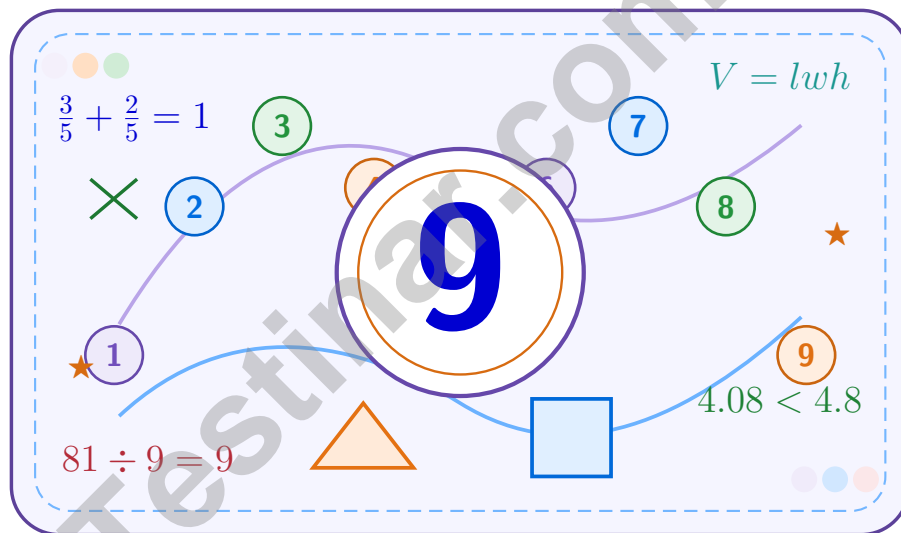
Improve Math Skills



Achieve Success

9 Tennessee TCAP Grade 5 Math Practice Tests

A nine-step confidence climb with clear review, smart strategy, and practice that gets stronger every round



Nine full tests, focused skill boosters, and student-friendly support from start to finish for Grade 5 mathematicians who want to climb higher.

Jay Daie and Reza Nazari



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Welcome to the Confidence Climb

This book is here to help you practice with purpose and rise step by step

To the Grade 5 Mathematician

This practice book is a place to think, try, fix, and grow. You do not have to be perfect on the first question or the first test. What matters most is careful effort, clear work, and learning from each round of practice.

Use these nine tests like stepping-stones. Take one test at a time, check your answers honestly, and notice which skills need more attention. Small improvements add up fast.

Try

Give each problem your best thinking.

Check

Study mistakes and learn what happened.

Rise

Bring that lesson into the next round.

A strong habit for every page: read carefully, estimate when it helps, show your steps, and keep going even when a question feels tricky. That is how steady math confidence is built.

How to Use This Book

A simple practice routine that turns nine tests into steady growth

A Nine-Session Climb Map

Session	Mission Focus
1	Take Test 1; review place value and operation slips.
2	Take Test 2; keep work neat and easy to read.
3	Take Test 3; give extra time to fractions and decimals.
4	Take Test 4; slow down on word problems and units.
5	Take Test 5; compare scores and habits with earlier rounds.
6	Take Test 6; notice which habits are now automatic.
7	Take Test 7; explain open-ended answers clearly.
8	Take Test 8; review topics that still need attention.
9	Take Test 9; finish with calm, careful, confident work.

Step 1: Warm Up

Start with the quick review.
Spend a few minutes refreshing the ideas before you start a test.

Step 2: Take the Test

Take one full practice test.
Work in a quiet space and let accuracy matter more than speed.

Step 3: Study the Pattern

Check your work honestly.
Circle missed questions and notice patterns in the mistakes.

Step 4: Learn, Then Retry

Read the explanation and try again.
Learning happens after the test too. Fixing mistakes is one of the smartest parts of practice.



Scan me

Test Overview

What this practice book helps students do

These practice tests are designed to help Grade 5 students get comfortable with the kind of thinking used on the Tennessee TCAP. The goal is bigger than only getting answers right. Students are practicing how to read closely, choose a strategy, solve carefully, and explain their work when needed.

Selected-Response Questions

Students solve the problem and choose the best answer. Estimating first and crossing out weak choices can save time and points.

Constructed-Response Questions

Students show their thinking, steps, models, or explanations. Even when unsure, writing what they know can help organize the problem.

Grade 5 Skills You Will Practice Often

- place value, comparing numbers, and rounding
- multi-digit addition, subtraction, multiplication, and division
- fractions, decimals, and mixed numbers
- perimeter, area, volume, and measurement conversions
- coordinate points, patterns, graphs, and tables
- geometry and multi-step word problems

What strong work looks like: the answer is correct, the steps are clear, the labels or units are included, and the final result makes sense.



Table of Contents

★ Practice Test 1	_____	15
★ Practice Test 2	_____	31
★ Practice Test 3	_____	46
★ Practice Test 4	_____	60
★ Practice Test 5	_____	75
★ Practice Test 6	_____	90
★ Practice Test 7	_____	107
★ Practice Test 8	_____	120
★ Practice Test 9	_____	133
Practice Test Answer Keys	_____	149
Practice Test Answers and Explanations	_____	155

Grade 5 Mathematics Reference Materials

PERIMETER AND AREA

Perimeter of Rectangle $P = 2l + 2w$ or $P = 2(l + w)$

Area of Rectangle $A = l \times w$

Area of Triangle $A = \frac{1}{2} \times b \times h$

Volume of Rectangular Prism $V = l \times w \times h$

LENGTH

Customary

1 foot (ft) = 12 inches (in.)

1 yard (yd) = 3 feet (ft)

1 yard (yd) = 36 inches (in.)

Metric

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

1 kilometer (km) = 1,000 meters (m)

CAPACITY

Customary

1 cup (c) = 8 fluid ounces (fl oz)

1 pint (pt) = 2 cups (c)

1 quart (qt) = 2 pints (pt)

1 gallon (gal) = 4 quarts (qt)

Metric

1 liter (L) = 1,000 milliliters (mL)

WEIGHT AND MASS

Customary

1 pound (lb) = 16 ounces (oz)

Metric

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TIME

1 minute (min) = 60 seconds (sec) 1 week = 7 days

1 hour (hr) = 60 minutes (min) 1 year = 12 months

1 day = 24 hours (hr) 1 year = 52 weeks



1) A farmer plants seeds. Tomato seeds: 60, 120, 180, 240. Basil seeds: 20, 40, 60, 80. Tomato seeds are how many times the matching basil seeds?

A. 1

C. 3

B. 2

D. 4

2) Find: $10 \div \frac{1}{4}$.

Record your answer in the space provided.

3) Pattern: $8 \times 5 = 40$; $80 \times 5 = 400$; $800 \times 5 = ?$

A. 400

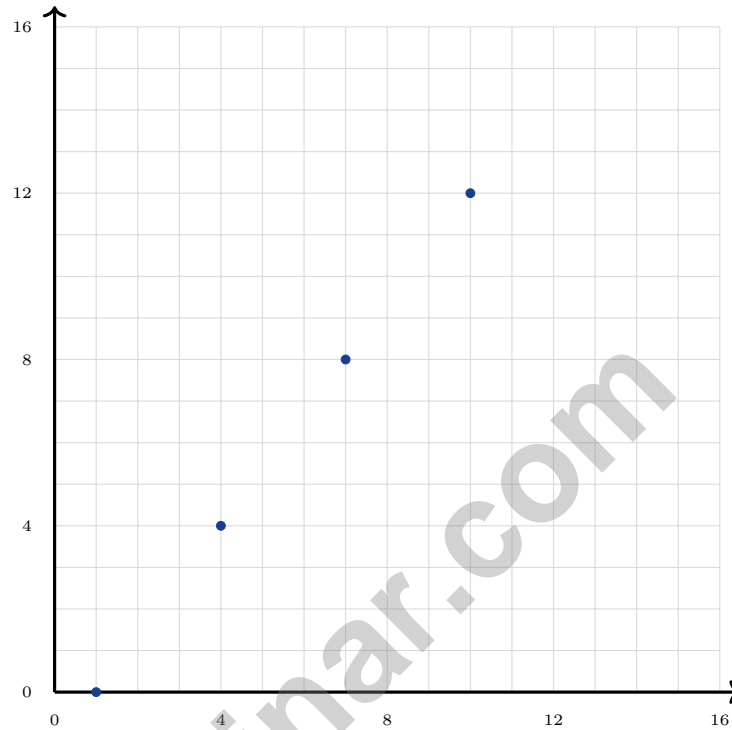
C. 40,000

B. 4,000

D. 40



- 4) Rule A starts at 1 and adds 3. Rule B starts at 0 and adds 4. Which list gives the first four ordered pairs as (Rule A, Rule B)?



- A. (1,0), (4,4), (7,8), (10,12) C. (1,1), (4,4), (7,7), (10,10)
 B. (0,1), (4,4), (8,7), (12,10) D. (3,4), (6,8), (9,12), (12,16)
- 5) Order these from least to greatest: $\frac{1}{2} \times 10$, 1×10 , $\frac{3}{2} \times 10$.

- A. $\frac{1}{2} \times 10 < 1 \times 10 < \frac{3}{2} \times 10$ C. $1 \times 10 < \frac{1}{2} \times 10 < \frac{3}{2} \times 10$
 B. $\frac{3}{2} \times 10 < 1 \times 10 < \frac{1}{2} \times 10$ D. All three are equal



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1) Add: $3\frac{5}{12} + 1\frac{7}{12}$

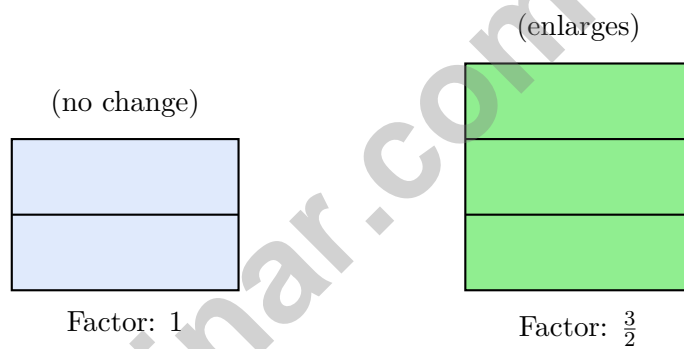
A. $4\frac{1}{12}$

B. $4\frac{7}{12}$

C. 5

D. $5\frac{1}{12}$

2) A scientist plots temperature changes on a graph with time in hours on the x-axis and temperature on the y-axis. Point (6, 72) appears on the graph. This means the temperature was 72 degrees at which time?

 A. 6 degrees at 72 minutes B. At 72 hours C. At 6 hours D. 6 minutes past

3)

If one 8-unit length is multiplied by 1, and another 8-unit length is multiplied by $\frac{3}{2}$, which result is larger?

 A. Both are equal B. 8×1 is larger C. $8 \times \frac{3}{2}$ is larger D. Cannot be determined

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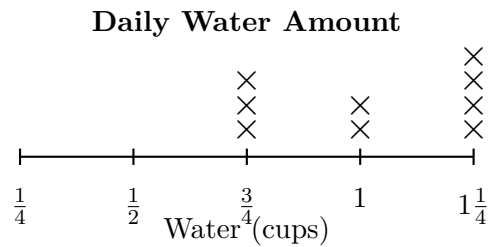
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- 1) The line plot shows the amount of water (in cups) plants received daily:



What is the total amount of water received by the plants that got $\frac{3}{4}$ cup?

- A. $1\frac{1}{2}$ cups C. 3 cups
 B. 4 cups D. $2\frac{1}{4}$ cups
- 2) A composite stage platform is made from two non-overlapping rectangular prisms. Prism A is 4 centimeters long, 2 centimeters wide, and 2 centimeters tall. Prism B is 3 centimeters long, 3 centimeters wide, and 1 centimeter tall. What is the total volume?
- A. 25 cubic centimeters C. 9 cubic centimeters
 B. 16 cubic centimeters D. 33 cubic centimeters
- 3) A cube is built from unit cubes, with 6 unit cubes along each edge. How many unit cubes are needed to fill the cube?

Record your answer in the space provided.



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Practice Test Answer Keys

How to use this section:

1. check your answer
2. circle missed questions
3. rework them before reading the explanation

Good correction habits build strong Tennessee scores.

Testinar.com



Practice Test Answers and Explanations

Practice Test 1 Answers and Explanations

- 1) **Choice C is correct.** (5.G.A.1) Tomato seeds are always 3 times basil seeds: $60 \div 20 = 3$, $120 \div 40 = 3$, $180 \div 60 = 3$, $240 \div 80 = 3$.
- 2) **The correct answer is 40.** (5.G.A.1) Each whole contains 4 fourths. Ten wholes contain $10 \times 4 = 40$ fourths, so the quotient is 40.
- 3) **Choice B is correct.** (5.NF.B.7) The known product $8 \times 5 = 40$ already has one zero. The factor 800 adds two more zeros, giving 4,000.
- 4) **Choice A is correct.** (5.NBT.A.2) Rule A: 1, 4, 7, 10. Rule B: 0, 4, 8, 12. Pairs (Rule A, Rule B) are listed in choice A.
- 5) **Choice A is correct.** (5.NF.B.5) The factors increase from $\frac{1}{2}$ to 1 to $\frac{3}{2}$, so the products increase: 5, 10, 15.
- 6) **Choice B is correct.** (5.NF.A.1) Add: $2\frac{1}{6} + 4\frac{5}{6} = 6\frac{6}{6} = 7$.
- 7) **Choice A is correct.** (5.NF.A.1) The blue region is 2 out of 5. The red region is 3 out of 4. The double-shaded overlap has 6 squares out of a total of 20, so the product is $\frac{6}{20}$.
- 8) **Choice A is correct.** (5.NF.A.1) Borrow 1: $7\frac{1}{3} = 6\frac{4}{3}$. Then $6\frac{4}{3} - 3\frac{2}{3} = 3\frac{2}{3}$. Student P is correct.
- 9) **Choice C is correct.** (5.NF.A.2) LCM(6, 9) = 18. Both 6 and 9 divide 18.
- 10) **Choice B is correct.** (5.NF.A.2) Both bars show the same shaded region. The top bar shows $\frac{4}{8}$ and the bottom bar shows $\frac{1}{2}$. Since $\frac{4}{8} = \frac{1}{2}$, they are equivalent.
- 11) **Choice A is correct.** (5.NBT.A.3) $1 + \frac{3}{10} + \frac{6}{100} = 1 + 0.3 + 0.06 = 1.36$. The digit 1 is in the ones place, 3 in tenths, 6 in hundredths.
- 12) **Choice A is correct.** (5.NF.B.4) The word “of” points to multiplication: $\frac{2}{3} \times \frac{5}{6} = \frac{10}{18}$, which simplifies to $\frac{5}{9}$.
- 13) **The correct answer is $\frac{7}{12}$.** (5.NF.A.1) LCD = 12. $\frac{4}{12} + \frac{3}{12} = \frac{7}{12}$.
- 14) **Choice A is correct.** (5.NF.A.1) 36×100 means 36 groups of 100, which is 3600. The student wrote 360, so only one zero was placed on the right instead of two.
- 15) **Choice A is correct.** (5.NF.B.4) $6 \times \frac{1}{8} = \frac{6}{8} = \frac{3}{4}$ (simplified).
- 16) **The correct answer is 11.37.** (5.NF.B.4) Write each to two decimals: $9.50 + 0.67 + 1.20 = 11.37$.
- 17) **Choice A is correct.** (5.NBT.B.7) 1 yard = 3 feet. So 2 yards = $2 \times 3 = 6$ feet. The bar model shows 3 feet per yard for 2 yards.
- 18) **Choice B is correct.** (5.OA.A.1) Multiplication inside the parentheses comes first: $3 \times 4 = 12$. Then $10 + 12 = 22$, and $22 - 2 = 20$, so Bella has the correct answer.
- 19) **The correct answer is $3\frac{1}{2}$.** (5.NF.B.4) Convert both mixed numbers first: $1\frac{1}{2} = \frac{3}{2}$ and $2\frac{1}{3} = \frac{7}{3}$. Then $\frac{3}{2} \times \frac{7}{3} = \frac{21}{6} = \frac{7}{2} = 3\frac{1}{2}$.
- 20) **Choices A, B are correct.** (5.NF.B.4) C is about $\frac{7}{10}$; D is $\frac{3}{4}$.
- 21) **Choice C is correct.** (5.NF.A.2) The base area is $10 \times 10 = 100$ square inches. Since $500 \div 100 = 5$, the height is 5 in.
- 22) **Choice D is correct.** (5.MD.C.5) Toy cars: $12 \times 3.2 = 38.4$ kg. Toy trucks: $8 \times 4.5 = 36$ kg. Total: $38.4 + 36 = 74.4$ kg.
- 23) **Choice B is correct.** (5.NBT.A.3) Trailing zeros do not change value: $0.3 = 0.30 = 0.300$ (all equal 3 tenths).
- 24) **The correct answer is 40.** (5.NBT.A.3) Multiply length, width, and height to count the unit cubes. $2 \times 4 \times 5 = 40$ cubic units.
- 25) **Choice B is correct.** (5.MD.C.4) The figure shows one pair of parallel sides (bottom and top) and two non-parallel sides, making it a trapezoid.
- 26) **Choice B is correct.** (5.OA.A.1) Substitute the values into the expression: $A \times (B + C) = 3 \times (7 + 5)$. The parentheses give 12, and $3 \times 12 = 36$.
- 27) **Choice C is correct.** (5.NF.B.6) Use total amount divided by the size of one piece. The equation is $5 \div \frac{1}{2} = n$.
- 28) **Choice D is correct.** (5.NF.B.6) $\frac{1}{3} \div 6 = \frac{1}{3} \times \frac{1}{6} = \frac{1}{18}$.



Authors' Notes

From a Friend Who Believes in You

Hi, Brilliant Friend!

◇ I have to tell you something important: I am proud of you. You completed 9 full practice tests. That takes time, focus, and heart. Many students never push themselves like that. You did. That tells me everything about your work ethic. ◇

★ **Here's a friendly reminder:** a test does not measure your worth. It measures one slice of your skills on one day. You are much more than a score. The work you put in to grow—that is the real win. ★

Things I Want You to Remember

- **You are capable.** Every test you finished proves it.
- **You are resilient.** You worked through hard problems.
- **You are growing.** Every mistake taught you something new.
- **You are ready.** The skills are inside you.

One last thing: when you sit down on test day, take a deep breath, smile a tiny smile, and remember that someone (me!) believes in you. You've got this.

If you'd like to share your experience or have questions, please email me at reza@testinar.com. I'd love to hear from you!

Reza Nazari & Jay Daie

Your Math Friend (Always in Your Corner)

PRACTICE MORE. ACHIEVE MORE.

Give your child the edge they need to excel in **Grade 5 Math!** This book includes **9 full-length** practice tests designed to build confidence, sharpen skills, and improve test performance.

9

**FULL-LENGTH
PRACTICE
TESTS**

- ✓ Realistic.
- ✓ Rigorous.
- ✓ Results-Driven.

More practice today for a **stronger** tomorrow.



THIS BOOK HELPS YOUR CHILD:



Build Confidence

Familiar, focused practice reduces anxiety and boosts self-belief.



Strengthen Skills

Reinforces key math concepts through high-quality, standards-aligned questions.



Improve Test Readiness

Full-length tests help students understand test format, pacing, and question types.



Track Progress

Identify strengths and target areas with purposeful practice.



Achieve Success

Better preparation leads to higher scores and bright futures.

COVERS ALL ESSENTIAL TOPICS

- ✓ Whole Numbers & Operations
- ✓ Fractions & Decimals
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Graphing & Data Analysis
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
- ✓ And More!



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